

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



549 980

(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/095113 A2

(51) International Patent Classification⁷: **G02F**
(21) International Application Number:
PCT/US2004/004082
(22) International Filing Date: 12 February 2004 (12.02.2004)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data:
60/457,615 26 March 2003 (26.03.2003) US

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*):
CARGILL, INCORPORATED [US/US]; 15407
McGinty Road West, Wayzata, MN 55391 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LEVERETTE, Chad** [US/US]; 5151 Creek Cove, Arlington, TN 38002 (US). **SMITH, Sean A.** [US/US]; 1747 Carruther Pl, Memphis, TN 38112 (US).

(74) Agent: **CHALETSKY, Lawrence, A.**; Law 24, 15407
McGinty Road West, Wayzata, MN 55391 (US).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AN AUTOMATED POLARIZED LIGHT MICROSCOPE COMBINED WITH A SPECTROSCOPY/SPECTRAL IMAGING APPARATUS

(57) Abstract: There is disclosed a device or apparatus that is particularly suitable for use in the analytical fields of polarized light microscopy and spectroscopy/spectral imaging. The apparatus comprises an automated polarized light microscope combined with means for achieving spectroscopic analysis. The apparatus may optionally include means for spectral imaging associated with the means for achieving spectroscopic analysis. Any means for achieving spectroscopic analysis may be utilized for example Raman, mid-infrared, near-infrared, ultraviolet, visible, luminescence, and the like.

WO 2004/095113 A2